

# An Application to Report Quantitative Measures of the Effectiveness of user Interfaces to be used for Task-Sensitive Evaluations., Phase I

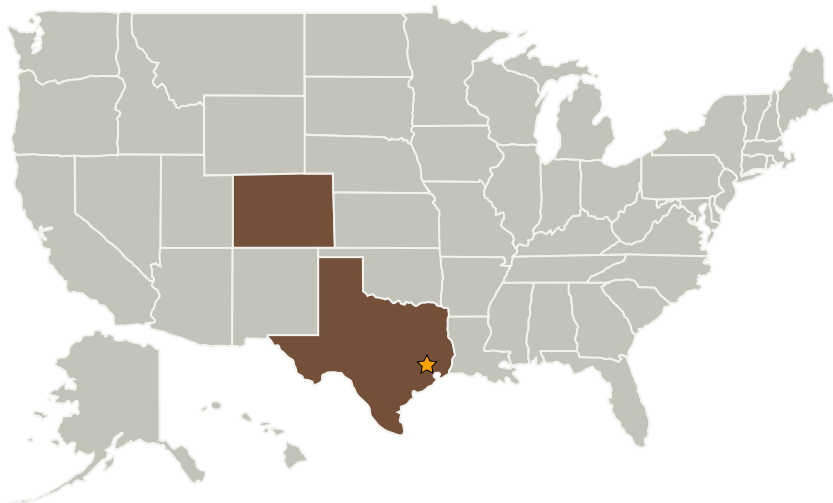
Completed Technology Project (2004 - 2004)



## Project Introduction

Micro Analysis and Design (MA&D) proposes to develop and build a tool to assist in the automated design and evaluation of graphical user interfaces (GUIs) under standard windowing environments. GOMS (Goals, Operators, Methods and Selection Rules) based techniques provide a quantitative method for evaluating alternative system designs, but are labor intensive to create. We propose abstracting the Keystroke Level Model GOMS technique to a higher level, the user interface component level. This abstraction will be integrated into a tool that will combine goal and task data with a model of the interface to predict the time to accomplish the goal and the user interface efficiency. The application will also provide a framework for the future development of metrics related to the interface design, user goals, and user characteristics.

## Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★ Johnson Space Center(JSC)	Lead Organization	NASA Center	Houston, Texas
Micro Analysis & Design Inc	Supporting Organization	Industry	Boulder, Colorado



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## Organizational Responsibility

### Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

### Lead Center / Facility:

Johnson Space Center (JSC)

### Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

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## Primary U.S. Work Locations

Colorado

Texas

## Project Management

### Program Director:

Jason L Kessler

### Program Manager:

Carlos Torrez

### Principal Investigator:

Thomas Engh

## Technology Areas

### Primary:

- TX06 Human Health, Life Support, and Habitation Systems
  - └ TX06.6 Human Systems Integration
    - └ TX06.6.1 Human Factors Engineering